US-PAT-NO: 5619280

DOCUMENT-IDENTIFIER: US 5619280 A

TITLE: Color conversion apparatus that restricts the color reproduction range of primary color signals

DATE-ISSUED: April 8, 1997

INVENTOR-INFORMATION:

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APPL-NO: 08/ 421930

DATE FILED: April 14, 1995

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
JP	6-075848	April 14, 1994

US-CL-CURRENT: 348/645, 348/649 , 348/661

ABSTRACT:

The present invention provides color conversion apparatus that prevents overflow in color reproduction, changes in hue, and the deterioration of gradation to improve image quality. The present

color conversion apparatus
inputs to itself luminance and color difference
signals, sets a reference value
not less than the maximum level of the luminance
signal, converts the luminance
and color difference signals into primary color
signals, detects the maximum
value of the primary color signals for each pixel,
lowers the levels of the
color difference signals if the maximum value is
over the reference value to
locate the amplitude of the primary color signals
not greater than the
reference value. Further, the present color
conversion apparatus inputs to
itself luminance and color difference signals, sets
a reference value not
greater than the minimum level of the luminance
signal, converts the luminance
and color difference signals into primary color
signals, detects the minimum
value of the primary color signals for each pixel,
lowers the amplitudes of the
color difference signals if the minimum value is
under the reference value to
locate the amplitude of the primary color signals
not less than the reference
value.

1 Claims, 16 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 12

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Detailed Description Text - DETX (73):

Matrix means 81 performs a 2.times.2 **matrix** operation defined by the equation (3), and **hue** and saturation are adjusted by the values of four coefficients a0, a1, a2, and a3 of the equation (3). The coefficients a0. a1, a2, and a3 are calculated and set beforehand by a means not shown in FIG. 11 following the equation (4), where h is a factor that increases saturation; in particular, if h>1, then saturation increases, and if h<1, then saturation decreases. The **parameter** w is a factor that rotates hue; in particular, if w.noteq.0, then the whole hue rotates in the chromaticity plane.